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INTERNATIONAL BULLETIN
OF PLANT PROTECTION

DISCOVERIES AND CURRENT EVENTS *

Palestine : Root Diseases caused by *Rhizoctonia bataticola* (1).

Rhizoctonia bataticola, known as causing wilting and root rot in many tropical and subtropical countries (Formosa, India, Ceylon, Egypt, West Indies and Eastern America), made its appearance also in Palestine.

The first observation of the disease was made in 1923 when a great part of the tobacco crop was destroyed, since when it has spread gradually over all parts of the country. Up to now the fungus has been isolated from 35 diseased host plants. Of these 21 are herbaceous plants: *Allium sativum, Antirrhinum* sp., *Beta vulgaris, Begonia rex bulbosa, Capsicum annuum, Cucumis sativus, Cucumis melo, Cucurbita pepo, Daucus carota, Fragaria vesca, Glycine Soya, Gossypium* sp., *Helianthus annuus, Lactuca sativa, Lycopersicum esculentum, Nicotiana tabacum, Phaseolus vulgaris, Sesamum indicum, Solanum melongena, S. tuberosum, Zea Mays.* The other 17 are woody plants : *Casuarina* sp., *Chamaerops* sp., *Citrus aurantifolium, C. aurantium, Cupressus sempervirens, Jacaranda mimosaefolia, Juglans regia, Myrtus communis, Pinus contorta, Pinus halepensis, Prunus divaricata* (Myrobolan), *Prunus persica, Vitis vinifera, Thuja* sp.

The greatest damage was caused to Bean, Tobacco, Sesame, Potato, Sweet Melon, Pepper and Tomato.

Inoculations, as far as they have been carried out, were successful only on bean.

Greece (Republic of) : *Aelia acuminata* on cereals (2).

In May 1929 a great number of *Aelia acuminata* attacked the cereal crops of the village of Comboti in Epirus and caused much damage.

The competent Service of the Ministry of Agriculture considered the necessity of compelling the farmers of the village to burn the stubble in order to kill the insect.

The insect also attacked in 1929 about 50 hectares of wheat in the village of Mirsini near Patras and destroyed 40 % of the crop.

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* In this, as in the two next chapters, the countries are arranged in French alphabetical order.

(1) Communication from Dr. I. REICHERT, Plant Pathologist, P. Z. E. Agricultural Experiment Station, Tel Aviv, Palestine, forwarded by the official correspondent of the Institute, Mr. E. R. SAWER, M. A., B. Sc., Director of Agriculture and Forests, Department of Agriculture, Forests and Fisheries, American Colony, Jerusalem, Palestine.

(2) Communication from the official correspondent of the Institute, Mr. C. A. ISSAAKIDES, Technical Adviser to the Minister of Agriculture, Athens.

VARIOUS QUESTIONS

Data and Information on Damage caused to Cultivated Crops by the Cold of the Winter 1928-1929 *

Belgium (1). — The following table shows the extreme temperatures recorded at different points in the country from October to April 1929 :—

Month	Ostende Altitude 5 m.		Uccle Altitude 100 m.		Bourg Léopold Altitude 50 m.		Forges-Chimay Altitude 328 m.		Baraque Michel Altitude 670 m.		Wardin lez Bastogne Altitude 447 m.	
	Maxima	Minima	Maxima	Minima	Maxima	Minima	Maxima	Minima	Maxima	Minima	Maxima	Minima
October 1928	18.9	0,1	19.8	— 2.1	19.6	— 2.8	17.8	— 1.0	16.0	— 4.4	17.8	— 4.0
November »	15.2	0.4	14.5	— 5.0	14.7	— 6.7	12.2	— 3.8	11.0	— 5.5	12.5	— 3.7
December »	—	—	10.2	— 5.9	10.9	— 7.7	9.1	— 7.9	6.6	— 10.7	7.8	— 12.3
January 1929	Paturages		7.9	— 11.4	8.6	— 11.7	4.5	— 9.8	4.0	— 11.9	6,7	— 15.2
February »	Altitude 92 m.		9,9	— 17.7	7.2	— 22,9	8.4	— 19.5	6.4	— 23.6	9.4	— 22.7
March »	20.4	— 11.0	21.5	— 10.0	19.3	— 13,3	20.4	— 12.8	16.8	— 13.4	18.0	— 14.0
April »	23.0	— 4.2	22.2	— 4.5	22.6	— 5.9	21.2	— 6.2	18.2	— 9.6	19.5	— 9.4

Cereals. — The most resistant wheats are those imported from Scandinavia, together with 'Champion' and the hybrid 18 of the Station d'Amélioration des Plantes at Gembloux, and 'Teverson'.

The following wheats were damaged : 'Wilhelmina' and 'Double Standup'. Among the non-resistant varieties also the hybrids 23 and 27 of Vilmorin must be reported in particular.

The most damaged winter barleys were the early varieties, specially those called Vendée, which were killed. It was observed that the Gembloux strain 125 is very resistant.

All the winter oats were completely killed.

Clover. — Fields of clover were much spoilt and are greatly thinned.

Grassland. — A considerable quantity of the leguminous plants and good grasses were destroyed. Many dandelions (*Taraxacum*) made their appearance this year in grassland.

Particularly in Central Belgium (Hesbaye) there was little protection this year for the crops ; in fact there was snow on only two days a month during the winter. For the early sowings in addition the ground was much broken up and the protection of clods even was thus removed and the damage was consequently greater. Plants following a beneficial crop and having received manure were in general more resistant.

The two following points may be specially noted among the damage observed :— (*a*) scorching of the leaves and stems in varieties of low resistance and in the early sowings ; (*b*) laying bare the base of the plants in slightly resistant varieties.

* Continued from No. 1

(1) Communication from the official correspondent of the Institute, Mr. E. Marchal, Directeur de la Station de Phytopathologie de l'Etat, Gembloux.

A more complete account from which these notes are extracts, will shortly appear by Mr. LAROSE, Assistant at the Station d'Amélioration des Plantes and Mr. G. VERPLANCKE, Assistant at the Station de Phytopathologie de l'Etat at Gembloux.

Eritrea (1). — The temperatures recorded during the winter of 1928-1929 were throughout the Colony considerably below the average. The minima which, during the years for which records of temperatures have been kept, have in the Upland been above 4°, during last winter descended below 0°, as may be seen in the following table in which are shown the temperatures registered at varying heights above the ground :—

January Days	Temperature at 6 m. above the ground	Temperature at 1.10 m.	Temperature at 0.10 m.
12	9	4	3
13	8	7.5	7.2
14	7	5.5	4.5
15	7	5.2	4.5
16	7	4	2.2
17	10.5	4	9
18	9.5	4.5	6.8
19	3	0	—1.5
20	4	—1.5	—3.5
21	5.5	—1	—3
22	6	1	—0
23	5	2	0.5
24	8	7	6.5
25	8	3	2
26	6	6	5
27	6.5	4	3
28	7	5.5	5.2
29	6.5	5.2	3.2
30	7.5	5	4
31	8.5	5	4

In the western Lowland, where normally the minimum temperatures are about 14°, on January 11, 1929, 9° C. was recorded.

These low temperatures have not however had very serious effects.

In the Upland the most important crops, the cereals (wheat, barley, ' taf ') are generally harvested by the beginning of the winter and to withstand the rigours of winter there only remain the forest trees, the late barley (' eifo '), fruit trees and vegetables.

Among the forest trees the *Eucalyptus* have shown least resistance to the low temperatures, both in the nursery and when recently planted out. No damage has been observed in trees over 3 years of age which had already reached a considerable development, particularly of the roots.

The late barley (' eifo '), was, unlike the fruit trees and vegetables, resistant to the cold.

Among the fruit trees those which were most seriously affected were the peaches and vines ; but taking into consideration the small economic importance to the Colony of these plants in comparison with other fruits and vegetables the damage cannot be regarded as serious.

In the region of the slopes no damage to the coffee and legume plantations had been reported ; the same may also be said of the crops of cotton, ' dura ', ' bultuc ', and sesame in the western Lowland.

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(1) Communication from the official correspondent of the Institute, Dr. A. DE BENEDICTIS, Capo dell'Ufficio Agrario del Governo dell'Eritrea, Asmara.

In the eastern Lowland in which there is winter rainfall, no adverse effects have been ascertained in the sowings or in their later development.

India (Punjab) (1). — In the Punjab winter of the year 1928-29 from November to March was exceptionally severe and heavy and prolonged frost occurred throughout the period and caused considerable damage to field and garden crops in different parts of the Province.

Extent of frost in days in representative stations: It has been generally observed that when the air temperature falls to 43°F or below it the ground becomes covered with frost.

1. Lyallpur: Normal annual rainfall 14.41; Frost:— November nil; December 21 days; minimum temperature varied from 34.1° F to 43.1° F. January: 24 days; minimum temperature ranged between 21.1° F to 42.3° F; February: 17 days with variation of minimum temperature between 28.9° F and 43.9° F.; March: one day; minimum temperature 42.4°.

2. Lahore: Normal rainfall: 19.62. Frost:— November, nil; December 18 days; minimum temperature varied from 39.0° F. to 43.8° F. January: 24 days; minimum temperature varied between 29.0 F. and 43.1 F. On most of the days it was below 39° F. February: 12 days; minimum temperature ranged from 31.1° F. to 42.6 F. March: one day; minimum temperature 43.0° F.

3. Multan: Normal rainfall: 7.20. Frost:— November, nil; December 13 days; minimum temperature varied from 36.3° F. to 43.7° F. January: 23 days; minimum temperature varied from 27.8 to 42.8. February: 10 days; minimum temperature varied from 30.5 to 43.4. March, nil.

4. Rawalpindi: Normal rainfall, 34.77. Frost:— November 10 days; minimum temperature varied from 39.0° F. to 42.5°. F. December: 27 days; minimum temperature varied from 36.5° F. to 42.9° F. January: 28 days; minimum temperature varied from 33.7 to 43.9. February: 21 days; minimum temperature varied from 26.7 to 43.5. March: 3 days; minimum temprature varied from 41.5 to 42.0.

5. Ambala: Normal rainfall: 30.49. Frost:— November: 4 days; minimum temperature varied from 41.5 to 43.6°. December: 10 days; minimum temperature varied from 37.0 to 43.8. January: 18 days; minimum temperature varied from 33.2 to 43.8. February: 9 days; minimum temperature varied from 34.0 to 42.7. March: nil.

The amount of damage done to the crops was observed to have varied from partial injury to total destruction according to the nature of the crop, of the prevailing conditions of moisture etc,, etc.

Wheats and barleys: In dry tracts depending on rainfall the crops were damaged to a greater extent than in canal irrigated areas. Heads of affected plants had turned white on emergence from the sheath and did not form any grain. Fields which were in the earing stage had suffered more. The heads were distorted and did not mature properly.

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(1) Communication from the official correspondent of the Institute, Rai Sahib Jaj Chand Luthra, M. Sc., D. I. C. (London), I. A. S., Associate Professor of Botany, Punjab Agricultural College, Lyallpur, Punjab, India.

In both these crops in the canal irrigated tracts the average damage did not exceed 3-4 % and that too occurred in fields that were not watered. In the dry localities average damage was about 15-20 %.

Gram (*Cicer arietinum*): This crop is chiefly grown in dry tracts, which depend on rainfall. Total area in the Punjab under this crop is about 3.7 million acres including 0.9 million acres of irrigated crop. The irrigated crop was severely damaged and was also found affected by Blight caused by *Mycosphaerella pinodes* (*Ascochyta pisi*) which generally breaks out under moist conditions.

Oilseed crops: In the dry regions of Eastern districts such as Gurgaon etc. Sarson (*Brassica campestris*) and Rocket (*Eruca sativa*) were altogether destroyed. In irrigated tracts, however, the damage was much less.

Leguminous fodder crops: These were Berseem (*Trifolium alexandrinum*), Senji (*Melilotus parviflora*) and Lucerne. Of these Berseem suffered to a certain extent. Its leaves turned red and growth was checked. But after the season had warmed up the crop recovered rapidly.

Potatoes: In most places potatoes had been dug up before severe frost of December appeared. But in some places the crop was late and was totally ruined.

Sugarcane: This crop suffered most. Leaves had dried up and buds had been killed. Quality of the juice was also spoiled and it did not crystallize fully on heating.

Studies made on the damage done to buds showed that those in lower parts remained almost sound while those in upper parts had invariably dried up. Apart from the damage done to the standing crops injury of the buds was a serious matter. Great difficulty was experienced in securing canes with sound buds for next year's planting.

Mangoes: Greatest damage was done to these plants. Flowering terminal buds which were about to blossom were totally destroyed and many trees either bore little fruit or none at all. Leaves and young twigs on the outer side of the plant had dried up totally. Grafted varieties suffered much more than those raised from seed. New shoots appeared in some plants in the interior of the Province. But in colder regions over 8 to 10 years old trees had completely dried up. Young plants in nursery which were not fully protected by covering were killed entirely.

Bananas: Leaves of Bananas had dried up, but new ones came out later. Flowering, however, was delayed.

Citrus: Young stock in the nursery, particularly lemons of thin skin varieties were killed. Also stock budded in autumn had been destroyed to a large extent.

Other garden plants: Ornamental hedges of *Duranta* particularly had dried up on the surface, but new shoots came forth later on.

Annuals and other flower plants received a set back in blossoming, but improved afterwards.

Edible peas (*Pisum sativum*): During the cold weather flowering ceased and young plants had dried up. But with the approach of summer plants improved.

General: The extent of damage had varied a great deal in different parts of the Province and had been largely influenced by the condition of the soil and shelters. It has been noticed that fields which had been watered or were moist during the periods of frost escaped damage. Also the presence of hedge around the fields of sugarcane, etc. afforded much protection Dry fields and exposed around were most affected. Proximity to buildings and other trees in the case of fruit plants minimised the effect of the frost to a marked degree.

Greece (Republic of) (1). — The winter of 1928-1929 was severe in Pelion. During February on 5 consecutive days minima of —5° C. were recorded with an absolute minimum of —10 C., which is quite exceptional. Elsewhere during March and even April the temperature was below the normal. Minima of 0° C. were recorded on March 4, 9, 10 and 18 and on April 9 and 30.

All early fruits and vegetables in general were destroyed, and cucumbers, pumpkins, beans, peas, etc. could not be obtained until the end of June, instead of in April as is usual even in the coldest parts of Greece.

The fruit trees which suffered most were the various sorts of citrus. It is estimated that 60 % of the orange orchards in Pelion were killed ; only certain trees in the courtyards of houses and in places sheltered from the north survived.

Peach trees, apricots and cherries which were exposed to the north were seriously damaged and only a few leaf buds opened on the branches and the flower buds were killed.

Heavy damage was also observed in the olive plantations. All the fruit which was on the trees in February — half the total crop — was frozen and rotted on the trees. The bark of the shoots of the last three years, particularly in plantations situated at 100 m. above sea level, was killed to the cambium, which caused the shoots to wither and the formation of numerous tumours by *Bacillus Savastanoi*. The consequences of the severe cold may still be seen in a tenth of the olive plantations in Pelion.

Sierra Leone (2). — The effect of the severe winter which was experienced in the temperate zone in 1928-29 was not noticed so near the Equator as Sierra Leone.

The meteorological data for that period here do not indicate any unusual change from normal conditions which might be correlated with the unusual conditions experienced farther north.

EURYGASTER *SPP. AND THE DAMAGE IT CAUSES TO CEREAL CROPS IN DIFFERENT COUNTRIES*

England (3). — No species of *Eurygaster* has been shown to be harmful in England. The species present are *Eurygaster maura* L., *E. testudinaria* Geoff., and *E. nigrocucullata* Goeze. No appreciable injury has been found to be due to these insects.

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(1) Communication from the official correspondent of the Institute, Mr. Demetrios CAVADAS, Director of the Phytopathological Station of Pelion, at Volo.

(3) Communication from the official correspondent of the Institute, Mr. F. C. DEIGHTON, B. A., Mycologist, Agricultural Department, Njala, via Mano, Sierra Leone.

(2) Communication from the Ministry of Agriculture and Fisheries, London, official correspondent of the Institute.

Austria (1). — Rhynchota have sometimes been observed in Austria, even in considerable numbers, on cereals, but no complaints of damage caused by the insects have ever been received, nor has any such damage been observed.

Belgium (2). — The species of *Eurygaster* occurring in Belgium are :—

(a) *E. maurus*.

(b) *E. hottentotus*.

E. integriceps, which is such a serious pest of cereals in Syria and Persia, has never been recorded in this country.

E. maurus is distributed throughout the country. It occurs fairly commonly on a number of wild grasses, more rarely on cereals. It attacks grass seeds before they ripen ; it is however not known to cause serious damage to cereals ; its presence on cereals appears to be secondary and it obviously prefers wild grasses in damp, cool places.

The insect not being of economic importance in Belgium its parasites have not been studied.

E. hottentotus is much more rare than the last but occurs in the same conditions.

Control methods. — Three methods appear to be recommended :

(a) Catching the larvae and adults directly by means of snares, known as " filets à faucher ", with a comparatively heavy ring.

(b) Sowing as trap-crops low, sappy grasses such as those preferred by the insect for laying purposes.

(c) Direct destruction of the larvae and adults in cases of excessive multiplication by spraying with an emulsion of extract of pyrethrum.

Canada (3). — Two species of *Eurygaster* are known in Canada, *Eur. shoshone* Kirkaldy, which was once recorded at Vernon, British Columbia and of which the habits are not known, and *Eur. alternatus* Say, which is common throughout Canada.

In the National Collection are a number of specimens from the following provinces :—

New Brunswick : at Fredericton ;
Quebec : at Covey-Hill and Kazabazua;
Ontario : at Belleville, Muskoka, Ottawa, Strathroy and Sudbury ;
Manitoba : at Aweme, Onah and Winnipeg ;
Saskatchewan : at Ruby and Saskatoon ;
Alberta : at Clareshome, Cowley, Lethbridge, Nanton and Shaftesbury ;
British Columbia : at Enderby, Duncan, Penticton, Royal Oak, Saanich and Victoria.

No indication can be found that these insects attack cereals.

Spain (4). — The most common species of *Eurygaster* in the Iberian Peninsula are :—

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(1) Communication from the official correspondent of the Institute, Hofrat Dr. Bruno Wahl, Direktor der Bundesanstalt für Pflanzenschutz, Wien, Österreich.

(2) Communication from Mr. R. Mayné, Directeur de la Station d'Entomologie de l'Etat at Gembloux, transmitted by Mr. E. Marchal, Directeur de la Station de Phytopathologie de l'Etat at Gembloux, official correspondent of the International Institute of Agriculture.

(3) Communication from the official correspondent of the Institute, Mr. Arthur Gibson, Dominion Entomologist, Entomological Branch, Department of Agriculture, Ottawa, Canada.

(4) Communication from the official correspondents of the Institute, Mr. Miguel Benlloch y Martínez, Ingeniero Agrónomo, Profesor de la Escuela de Ingenieros Agrónomos, Director de la Estación Central de Patología Vegetal, La Moncloa, Madrid, and Mr. José del Cañizo y Gómez, Ingeniero Agrónomo, Licenciado en Ciencias Naturales, Agregado a la Estación Central de Patología Vegetal.

Eur. maurus L., which occurs throughout the Peninsula except in the north ;

Eur. austriacus Schrk., which is found in the same regions except in Andalusia ;

Eur. hottentotus F. var. *maroccanus* Fieb., is found also in the south, though less frequently than *Eur. maurus*.

The species mentioned, particularly *Eur. maurus*, do occasionally cause damage to the wheat, but have not yet been studied because they have not up to the present been a serious pest of cereals.

According to recorded observations *Eurygaster* attacks wheat in the early summer (beginning of July) and for this reason is commonly called ' San Pedrito ' in the province of Toledo where the appearance of the adults coincides approximately with St. Peter's Day (' San Pedro ', 29 June).

In addition to the reduction of the crop the grain and straw have an unpleasant odour like that of bedbug ; live stock and poultry consequently will not eat them and there is difficulty in finding a market for them.

The late sowings are always more damaged than the early ones, and in every case the most serious loss occurs between the coming into ear (20-30 May) and the harvest (second half of July).

The only insect belonging to Hemiptera Heteroptera which is of real importance in Spain on account of the damage caused to wheat is *Aelia rostrata* Boh., well known under the popular name of ' Parpaja ' in Old Castile, ' Paulilla ' in Andalusia and ' Garapatillo ' in Aragón.

The most practical and efficacious control method consists in spraying the bushes in the vicinity of wheat fields with benzine and burning them, for they seem to be where the adults hibernate.

Burning the stubble after harvesting is also recommended.

Hungary (1). — Among the species of *Eurygaster* occurring in Hungary none causes any damage to cereals. Consequently no control methods are known or have been tested. Similarly no natural enemies of *Eurygaster* are known in Hungary and no study has been made of them.

The species *Eur. integriceps* does not occur in Hungary.

Malta (2). — No species of *Eurygaster* is known to exist in these Islands, and no damages referable to these bugs have ever been recorded.

Morocco (3). — The following species occur in Morocco :— *Eurygaster hottentotus* V. var. *maroccanus* Fabr., *Eur. austriacus* Schrenk, *Eur. maurus* L. var. *pictus* Fabr., *Eur. maurus* L. var. *niger* Stieber.

Up to the present it has not been ascertained that these species cause any damage to crops in the country.

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(1) Communication from the official correspondent of the Institute, Mr. G. Bakó, Director der Kön. Ung. Entomologischen Station, Budapest, Ungarn.

(2) Communication from the official correspondent of the Institute, Prof. J. Borg, M. A., M. D., Superintendent of Agriculture, Valletta, Malta.

(3) Communication from M. le Chef du Service de l'Agriculture et des Améliorations Agricoles, Rabat, official correspondent of the Institute.

Palestine (1). — *Eurygaster integriceps* only occurs sporadically in Palestine and has not been observed to attack cereal crops.

Greece (Republic of) (2). — *Eurygaster integriceps* has not to my knowledge caused any damage in this country.

Turkey (3). — *Eurygaster integriceps* occurs in Turkey in the regions of Adana, Islahiyé, Marach, Kilis and Ayintab. It has been localised in the east for three years in the northern Taurus ; in the south it reaches as far as the Turko-Syrian frontier.

It is met with in other regions but without being regarded as a pest on wheat. For example, Adrianople (with *E. maurus*), Brussa, Samsun-Dardanelles, etc.

It is a serious pest of wheat in certain regions. In certain places and in certain years it causes as much as 90 % losses of the crop.

Catching the adults with moth traps is the only method of saving threatened crops.

The use of early varieties of wheat and restricting the sowing of wheat may also be recommended.

Two natural enemies have been observed : *Phasia* sp., a Dipterous parasite of the adult, but of little importance, and *Teleas semistriatus*, which does considerable damage to the eggs of *Eurygaster* and may be regarded as the only agent capable of checking the pest.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Austria. — The new Law relating to plant protection (Federal Law No. 252 of 12 July 1929) contains in Part I the fundamental provisions concerning the protection of crops from diseases and pests.

§ 1 defines the aims and scope of the Law, which does not in general extend to forest plants.

§§ 2 to 5 give the general regulations concerning the obligations of owners of land and forest, of communes, farmers and persons owning or having charge of stores of plant products.

§§ 6 to 8 specify the points which must be regulated by special Laws in each administrative unit (« Landesgesetz »), in particular :— provisions fixing the cases in which the authorities must be informed, control measures, common control action, restricting and prohibiting of sale, crop inspection, collaboration of experts and agricultural corporations with private individuals, public notices.

§ 9 is concerned with the requisition and payment of the Federal Station for Plant Protection at Vienna.

Part II of the Law contains the practical regulations to be followed in carrying out the protection of crops :—

§ 12. — The Federal Minister of Agriculture and Forests in agreement with

(1) Communication from the official correspondent of the Institute, Mr. E. R. Sawer, M, A., B. Sc., Director of Agriculture and Forests, Department of Agriculture, Forests and Fisheries, American Colony, Jerusalem, Palestine.

(2) Communication from the official correspondent of the Institute. Mr. C. A. Issaakides, Technical Adviser to the Minister of Agriculture, Athens.

(3) Communication of the official correspondent of the Institute, Mr. M. Sureya, State Counsellor, Angora, Turkey.

the Federal Minister of Finance may, if he considers there is risk of the importation from a foreign country of a disease or pest of crops in Federal territory, issue an order prohibiting or subjecting to special conditions the importation or even the transit of plants, plant parts or objects coming from such a country, or which have passed through such a country in transit, if they are liable to be carriers of diseases or to cause the spread of the pest.

§ 13. — (1) If a decision is required on whether a consignment shall be admitted for importation the Federal Station for Plant Protection at Vienna and, in the case of seeds, the Federal Station for Plant Cultivation and Seed Control at Vienna, are alone authorised in Federal territory to make an examination and deliver a report. These Institutions may, with authorisation from the Federal Ministry of Agriculture and Forests, authorise other technical organisations to carry out such official actions in their name.

(2) On the other hand it is incumbent on the organisations mentioned in § 13 (1) to determine and certify the sanitary condition of consignments of plants the healthy state of which, in accordance with foreign phytosanitary prescriptions, must be certified before their exportation to or transit through foreign countries is allowed.

(3) The Federal Minister of Agriculture and Forests may by order make it obligatory to report to the Federal Station for Plant Protection at Vienna diseases and pests of plants the foreign trade in which requires special precautions. The Minister may also issue special orders regulating such reports and fixing approximately the information which must be supplied with regard to the nature and provenance of consignments examined by the Federal Station for Plant Protection.

(4) Land owners are obliged, in this as in other cases, on the demand of the Federal Station for Plant Protection to supply accurate information on outbreaks of crop diseases and pests.

(5) The chief local administrative officer is required to supply immediate information to the Federal Station for Plant Protection at Vienna regarding the content of reports concerning outbreaks of crop diseases and pests and must therefore secure that the various bodies to which the report forms are sent shall send him in good time the information required.

(6) The reports and certificates referred to in § 13 (1) and (2) and the examinations they necessitate, will be carried out in accordance with the rules of the Federal Station for Plant Protection or of the Federal Station for Plant Cultivation and Seed Control, at the expense of the person making the request.

§ 14. — Any person who shall for the sake of procuring a report or certificate as mentioned in § 13 make false declarations by negligence will be fined by the public authority of the district, such fine not to exceed 500 shillings ; if the mistake shall have been made with intention to defraud or with other aggravating circumstances the person will be liable to imprisonment, with or without the fine, for a period not exceeding 15 days.

§ 15. — The provisions of §§ 12 and 14 may be extended to include the protection of forests against diseases and pests. In this case the powers conferred by § 13 on the Federal Station of Plant Protection at Vienna and on the Federal Station for Plant Cultivation and Seed Control are transferred to the Federal Experimental Forestry Station at Mariabrunn.

§ 16. — The hawking of fruit trees and bushes and vines is prohibited.

Part III of the Law contains final and transitory regulations.

§ 19. — (1) The Law of 28 July 1926 (*B. G. Bl.* Nr. 215) concerning potato wart disease [*Synchytrium endobioticum*] and that of 23 November 1927 (*B. G. Bl.* Nr. 340) concerning the control of the same disease, are not affected by the pre-

sent Law. The Order of 27 January 1927 (*B. G. Bl.* Nr. 39) bringing into force the Law of 28 July 1926 (*B. G. Bl.* Nr. 215) remains in force until further notice.

(2) The International Convention of 3 November 1881 (*R. G. Bl.* Nr. 105 of 1882) and the complementary Declaration of 15 April 1889 (*R. G. Bl.* Nr. 16 of 1890) concerning Grape Phylloxera (*Phylloxera vastatrix*), which are both obligatory for Austria in accordance with Art. 234 of the Treaty of Saint Germain of 10 September 1919 (*St. G. Bl.* Nr. 33) also remain intact. The regulations drawn up as a result of this Convention and Declaration which contain the commercial restrictions for the whole of the Federal territory (restrictions and prohibitory rules concerning exportation, importation and transit) remain in force until further notice.

(3) In the administrative units however, the prescriptions of the Federal Laws concerning the measures to be taken against the development of Grape Phylloxera which are now in force, will cease to take effect from the time when the Laws established for the application of the present Law come into force.

(4) The Order of 29 April 1875 (*R. G. Bl.* Nr. 73) concerning the prohibiting of the importation of potatoes from the United States of America and of potato waste and packings, the Orders of 31 December 1926 (*B. G. Bl.* Nr. 18 of 1927) and 2 December 1927 (*B. G. Bl.* Nr. 3 of 1928) concerning restrctions on the importation and transit of living plants and fresh fruits coming from America, Australia, China, the Hawaian Islands and Japan, also of fruit trees and bushes from any country, and the Order of 15 June 1929 (*B. G. Bl.* Nr. 206) forbidding the importation and transit of potatoes, tomatoes and aubergines, and of their waste and packings, coming from France, remain in force until further notice.

§ 20. — The present Federal Law does not affect Laws promulgated in each administrative unit of the country for putting into effect the Law of 28 July 1926 (*B.G. Bl.* Nr. 215) against potato wart disease.

§ 21. — From the time when the present Law comes into force the issue of new permits for hawking fruit trees and bushes and vines will be prohibited and existing permits (§ 16) may not be prolonged. (*Bundesgesetzblatt für die Republik Österreich*, Wien, 26. July 1929, Jahrg. 1929, 60. Stück, S. 987-991).

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